

March 11, 2010 NIST Smart Grid Privacy Subgroup Meeting Notes

Minutes by Rebecca Herold

Please send this distribution list any necessary corrections or additions.

Thanks to all of you participating and contributing your valuable time and resources to our group's work! We are a diverse group, with often differing viewpoints, but our collaboration and considerations of all viewpoints will result in a much more valuable privacy chapter.

Next full group meeting:

Thursday, March 18, 2010 at 11:00am est

Here are my summary notes from yesterday's meeting:

1. General Discussion

- We started out discussing use cases, but then covered many other topics. Here are my notes from that discussion.
- What will existing use cases not cover that are significant privacy issues we've already identified?
- We need to make sure use cases exist to cover the privacy concerns that involve the following:
 - a. Smart meters: communicating with a utility; communicating with an appliance and/or applications vendor; ways in which the smart meter data within the smart grid can be accessed, and the various actors; etc.
 - b. Smart appliances: data sent to smart grid; data sent to appliance vendor; etc.
 - c. Personal applications: data sent to Google/Microsoft/ etc.; data sent to public sites
 - d. PEVs: data sent to utility; data sent to third party via application; etc.
- Frances: Most of existing use cases, including those in NISTIR, were not developed with privacy in mind.
- Jules: People are being sent history billing information comparing to other folks; how granular can you go? Where is the line between what is appropriate, and what needs to require consent? Policy practical decision, e.g., in CA, third parties should be able to access the smart grid data.
- Frances: The data that can be private at one level can then become non-private at another level. Probably around list of 50 different types of data items to consider.
- Lee: What do you mean by different types of data, and different types of privacy needs? What do the energy folks mean by this? How much can you re-identify from these aggregations?
- Frances: E.g., kw used during 15 minute time frames. Aggregated over a month, becomes private but less informative. 1000 customers fed from one substation, aggregate load on the substation will give little individual information.
- Jules: Summary information will not really be of interest. Can we agree that adequately aggregated data is out of scope? Focus on the individual data.
- Frances: Where is the fine line? Substations?
- What does anonymization mean for the smart grid? If data is aggregated to a specific point? Add this into the report.

- Frances: Voltage signals can show exactly what is going on inside a house. However, averaged over a day, or even perhaps an hour, loses the ability to show personal activities.
- Can we get, let's say 3, examples of where aggregation break points exist?
- Can we get examples of how the voltage signals show specific personal activities at one point, but then do not after it passes another point?
- Daphne: Customer info has been protected for a long time by existing laws. Aggregating is an issue that has been viewed before by the utilities.
- We must be sure to point out these types of issues within the legal and regulatory section.
- Tanya: Be careful about what we are telling people, policymakers, etc. about what they can and cannot do.
- Frances: Almost all interoperability standards include time stamp for when data was created.
- Hovanes: What are the standards that all applications vendors must be held to? What do the utilities and privacy groups expect smart grid applications vendors to do with regard to protecting data, and which data?
- Frances: For utilities, there must be a balance between the efforts and costs of implementation. Must know the impacts of the privacy risks.
- Daphne: Flow of energy data, to and from the utilities, probably the biggest risk areas.
- Frances: Can create the laundry list of data types, and the related issues.
- Karen M: We outlined some high-level data points in the past. Be sure to include those.
- Hovanes: Survey of existing use cases for entire NISTIR use cases.
- Smart meter talking to utility; that would be a good use case to include.
- Action PAP 7, 8 & 9 includes information we should use.
- Jules: Consider an application that accesses power data, and it can be shared with others. There is no protection around that today. If that app also pulls power data from utilities, smart appliances, etc. new concerns are raised. When new data becomes available, it is sensitive and should be protected.
- New data is there, and it should be protected. What is covered and not covered? What guidance are we giving? Answer these questions in our privacy chapter.
- Lillie: How do privacy laws in US protect information? If smart grid is considered as extension of existing laws? Or, is it a completely different realm that has no laws governing it? We need to clearly communicate this.
- What about laws in other countries where not only smart grids are being used, but where US smart grid data will be stored and/or processed.
- Frances: Important to get to detailed types of information, and describe the conditions around the use of that data. Some data may be private to one entity, but not to other entities. These may be covered by existing laws, but other are not, but should be protected.
- Daphne: Use laws tangential with existing chapters.

2. TO-DO:

- **Frances** will send the privacy subgroup the laundry list of the ~50 data items and associated information about them.
- **Each Team Leader**: Set times for your teams to meet to discuss and develop your section of the privacy chapter. Report progress at next Thursday's meeting. Teams and leaders include:

- Team 1: General Privacy Discussion - Rebecca Herold
- Team 2: Legal & Regulatory - Sarah Cortes
- Team 3: Use Cases – Gail Magnuson
- Team 4: Expansion of Privacy Concerns and Issues - Eric Ackerman
- Team 5: Definitions – Tanya Brewer

NOTE: The audience for our privacy chapter will be very diverse! From all levels of the federal and state governments, to privacy advocacy groups, to energy sector entities, to vendors who want to have a part in the smart grid.

As we are working on the next, final version, always keep in mind that we must be sure to frame the issues/concerns/etc. within the Smart Grid, and point out how they are unique to the Smart Grid. There **WILL** be data that is not unique to the Smart Grid (such as many different types of PII and other personal information), however there will be privacy concerns related to that information that **WILL** be unique to the Smart Grid, and we need to make sure we clearly explain them.

Thanks!

Rebecca